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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/715,508	11/19/2003	Norman Hutchinson	30016070-1004	4699

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EXAMINER

HWANG, JOON H

ART UNIT	PAPER NUMBER
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2166

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/07/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/715,508

Applicant(s)

HUTCHINSON ET AL.

Examiner

Joon H. Hwang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 29-52 is/are pending in the application.
- 4a) Of the above claim(s) 1-28 is/are ~~withdrawn from consideration~~ Cancelled.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 29-52 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 November 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. The applicants canceled claims 1-28 and added new claims 29-52 in the amendment received on 11/1/06.

The pending claims are 29-52.

Specification

2. The disclosure is objected to because of the following informalities:
 - “a secondary storage computer 112”, page 13, line 7, should be “a secondary storage 112”.

Appropriate correction is required.

Response to Arguments

3. Applicant's arguments with respect to claims 29-52 have been considered but are moot in view of the new ground(s) of rejection.

A. The applicants' argue that Sutter does not disclose a hierarchical data store.

The examiner respectfully traverses.

It is a well settled rule that a reference must be considered not only for what it expressly teaches, but also for what it fairly suggests. See *In re Burckel*, 592 F.2d 1175, 201 USPQ 67 (CCPA 1979) and *In re Lamberti*, 545 F.2d 747, 192 USPQ 278 (CCPA 1976) as well as *In re Bode*, 550 F.2d 656, 193 USPQ (CCPA 1977) which indicates such fair suggestions to unpreferred embodiments must be considered even if they were not illustrated. Additionally, it is an equally well settled rule that what a

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reference can be said to fairly suggest relates to the concepts fairly contained therein, and is not limited by the specific structure chosen to illustrate such concepts. See *In re Bascom*, 230 F.2d 612, 109 USPQ 98 (CCPA 1956).

The applicants' merely claim a hierarchical replicated data store. Sutter discloses a database schema utilizes a sense of direction (i.e., up and down) among the records (i.e., a root record and records related to the root record) (line 65 in col. 36 thru line 15 in col. 37, lines 29-37 in col. 61, and lines 35-49 in col. 62). Therefore, Sutter teaches the hierarchical replicated data store.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 29-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sutter (U.S. Patent No. 6,446,092) in view of Crowe et al. (U.S. Patent No. 5,970,488).

With respect to claim 29, Sutter teaches a data processing system having peer-to-peer replicated data stores including a message sending data store and a plurality of data stores (lines 10-21 in col. 4 and lines 20-33 in col. 10). Sutter teaches receiving, by a receiving one of the plurality of data stores, a replication message sent from the message sending data store (lines 10-33 in col. 4 and line 4 in col. 74 thru line 64 in col. 75). Sutter teaches updating a value in the receiving data store based on the received

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replication message (line 4 in col. 74 thru line 64 in col. 75). Sutter does not explicitly disclose broadcasting a replication message. However, Crowe teaches broadcasting a replication message from message sending data store to the plurality of data stores (fig. 1, lines 20-29 in col. 2, and lines 39-42 in col. 3) in order to minimize system costs for replication. Therefore, based on Sutter in view of Crowe, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teaching of Crowe to the system of Sutter in order to minimize system costs for replication.

With respect to claim 30, Sutter teaches updating a second value in the receiving data store (lines 10-21 in col. 4, lines 20-33 in col. 10, and line 4 in col. 74 thru line 64 in col. 75). Sutter teaches sending, from the receiving data store, a replication message to a second receiving data store based on the update of the second value (lines 10-21 in col. 4, lines 20-33 in col. 10, and line 4 in col. 74 thru line 64 in col. 75). The limitations of claim 30 are rejected in the analysis of claim 29, and the claim is rejected on that basis.

With respect to claim 31, Sutter teaches determining if the replication message received from the message sending data store is consistent with the value in the receiving data store (lines 15-29 and 57-63 in col. 6 and line 4 in col. 74 thru line 64 in col. 75).

With respect to claim 32, Sutter teaches identifying the difference between the receiving data store and the message sending data store if the receiving data store and the message sending data store are not consistent (lines 15-29 and 57-63 in col. 6 and

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line 4 in col. 74 thru line 64 in col. 75). Sutter teaches reconciling the receiving data store and the message sending data store based on the identification (line 4 in col. 74 thru line 64 in col. 75).

With respect to claim 33, Sutter teaches updating the least recent data store at the point of the identified difference based on the most recent data store (line 4 in col. 74 thru line 64 in col. 75).

With respect to claim 34, Sutter teaches the receiving data store is a hierarchical replicated data store (line 65 in col. 36 thru line 15 in col. 37, lines 29-37 in col. 61, and lines 35-49 in col. 62).

With respect to claim 35, Sutter teaches comparing contents of the receiving hierarchical replicated data store to the received replication message using hash values (lines 12-50 in col. 75).

With respect to claim 36, Sutter teaches comparing a sub-tree in the receiving hierarchical replicated data store by comparing hash values (line 65 in col. 36 thru line 15 in col. 37, lines 29-37 in col. 61, lines 35-49 in col. 62, and lines 12-50 in col. 75).

The limitations of claims 37-44 are rejected in the analysis of claims 29-36 respectively, and these claims are rejected on that basis respectively.

The limitations of claims 45-52 are rejected in the analysis of claims 29-36 respectively, and these claims are rejected on that basis respectively.

Conclusion

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6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

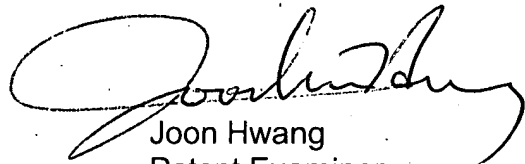
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joon H. Hwang whose telephone number is 571-272-4036. The examiner can normally be reached on 9:30-6:00(M~F).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain T. Alam can be reached on 571-272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Joon Hwang
Patent Examiner
Technology Center 2100

2/5/07